

CATALYST ASSEMBLY

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ABSTRACT OF THE DISCLOSURE

10 A catalyst assembly comprising a substrate,
nanofilaments which have a nanometer-size diameter and
are formed on the substrate, and particles which have a
nanometer-size diameter, at least one of the
nanofilaments and the particles having a catalytic
function, is provided to use a catalyst more efficiently
and to provide a catalytic function more efficiently.
15 Interstices between the nanofilaments serve as
distribution channels of a reactive gas, and the reactive
gas spreads sufficiently not only around the ends of
nanofilaments but also inside a catalyst assembly. A
combination of nanofilaments and particles enables
20 dispersion of a catalyst at a distance of not more than
about 100 nanometers.